

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1. (Currently amended) An anti-squeal shim structure comprising: ~~a metal~~ an aluminum alloy plate having compressive strength and heat resistance as in JIS 1085, 1080, 1070, 1050, 1100, 1200, IN00, IN30, 2014, 2017, 2219, 2024, 3003, 3203, 3004, 3104, 3005, 3105, 5005, 5052, 5652, 5154, 5254, 5454, 5082, 5182, 5083, 5086, 5N01, 6061, 7075 or 7N01, and a rubber layer provided at least on one side of the metal plate, ~~wherein an aluminum alloy plate is used for said metal plate.~~

2. (Currently amended) A disc brake apparatus comprising: an aluminum caliper, a disc brake portion mounted in the interior thereof, ~~an~~ an anti-squeal shim structure, wherein said anti-squeal shim structure comprises ~~a metal~~ an aluminum alloy plate, and a rubber layer provided at least on one side of the metal plate, ~~an aluminum alloy plate is used for said metal plate,~~ wherein the aluminum alloy plate has little difference in electrode potential than the aluminum caliper so that corrosion due to a difference in electrode potential is minimized.

3. (New) The disc brake apparatus according to Claim 2, wherein said aluminum alloy plate has a compressive strength and heat resistance as in JIS 1085, 1080, 1070, 1050, 1100, 1200, IN00, IN30, 2014 2017, 2219, 2024, 3003, 3203, 3004, 3104, 3005, 3105, 5005, 5052, 5652, 5154, 5254, 5454, 5082, 5182, 5083, 5086, 5N01, 6061, 7075 or 7N01.

4. (New) The disc brake apparatus according to Claim 3, wherein said aluminum alloy plate further comprises one of the elements Si, Fe, Cu, Mn, Mg, Cr, Zn, Zr, Ga, V and Ti.

5. (New) The disc brake apparatus according to Claim 2, wherein said aluminum alloy plate comprises one of JIS 2014, 2017, 2219, 2024, 5005, 5052, 5652, 5154, 5254, 5454 and 7075.

6. (New) The anti-squeal shim structure according to Claim 1, wherein said aluminum alloy plate comprises JIS 2014, 2017, 2219, 2024, 5005, 5052, 5652, 5154, 5254, 5454 or 7075.

7. (New) The anti-squeal shim structure according to Claim 6, wherein said aluminum alloy plate further comprises one of the elements Si, Fe, Cu, Mn, Mg, Cr, Zn, Zr, Ga, V and Ti.

8. (New) A disc brake apparatus comprising:
an aluminum caliper;
a disc brake pad comprising:
 a friction material; and
 a metal backing plate;
an anti-squeal shim structure comprising:
 an aluminum alloy plate, said aluminum alloy plate having greater heat resistance and compressive strength than an aluminum plate; and
 a rubber layer;
a piston for contacting the shim structure; and
a disc rotor adjacent said disc brake pad,
wherein the aluminum alloy plate of said anti-squeal shim structure and said aluminum caliper have little difference in electrode potential so that corrosion of said caliper due to a difference in electrode potential is minimized.

9. (New) The disc brake apparatus according to Claim 8, wherein said aluminum alloy plate has a compressive strength and heat resistance as in JIS 1085, 1080, 1070, 1050, 1100, 1200, IN00, IN30, 2014 2017, 2219, 2024, 3003, 3203, 3004, 3104, 3005, 3105, 5005, 5052, 5652, 5154, 5254, 5454, 5082, 5182, 5083, 5086, 5N01, 6061, 7075 or 7N01.

10. (New) The brake apparatus according to Claim 9, wherein said rubber layer of said anti-squeal shim comprises NBR, fluoride rubber or silicone rubber.

11. (New) The brake apparatus according to Claim 9, said rubber layer comprising a first rubber layer, said anti-squeal shim structure including a second rubber layer, said first and second rubber layers being on opposing sides of said aluminum alloy plate.

12. (New) The brake apparatus according to Claim 9, said anti-squeal shim structure including a bonding layer, said bonding layer and said rubber layer being on opposing sides of said aluminum alloy plate, wherein said bonding layer is positioned between the backing plate of the disc pad and the aluminum alloy plate to form a damping structure.

13. (New) The disc brake apparatus according to Claim 8, wherein said aluminum alloy plate comprises JIS 1085, 1080, 1070, 1050, 1100, 1200, IN00, IN30, 2014 2017, 2219, 2024, 3003, 3203, 3004, 3104, 3005, 3105, 5005, 5052, 5652, 5154, 5254, 5454, 5082, 5182, 5083, 5086, 5N01, 6061, 7075 or 7N01.

14. (New) The disc brake apparatus according to Claim 13, wherein said aluminum alloy plate further comprises one of the elements Si, Fe, Cu, Mn, Mg, Cr, Zn, Zr, Ga, V and Ti.